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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/719,017	11/24/2003	Shuji Fujii	PRON: 002	9160

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EXAMINER	
LEE, JINHEE J	
ART UNIT	PAPER NUMBER
2831	

DATE MAILED: 03/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/719,017	FUJII, SHUJI	
	Examiner	Art Unit	
	Jinhee J. Lee	2831	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *4-6 and 8-12* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *4-6 and 8-12* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4-6 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Aoyama et al. (US006222134B1).

Re claim 4, Aoyama et al. discloses a polymer insulator apparatus comprising a rigidly and unrotatably connected rectangular structure comprising plural polymer post insulators (2), a supporting structure (unnumbered post, see column 5 lines 11-14 according to the numbering in the middle) and a plate member (12, tying member, see column 5 lines 53-57), wherein a first end of each polymer post insulator is rigidly and unrotatably connected to said supporting structure, and a second end of each said polymer post insulator is rigidly and unrotatably connected to said plate member, (see figure 1B).

Re claim 5, Aoyama et al. discloses a method for mounting plural polymer post insulators on a supporting structure, comprising: providing a supporting structure (unnumbered) and plural polymer post insulators (2); rigidly and unrotatably connecting a first end of each said plural polymer post insulator to the supporting structure; and rigidly and unrotatably connecting a second end of each said plural polymer post insulator whereby said plural polymer post insulators are parallel to each other and

normal to the supporting structure, thereby forming a rigidly and unrotatably connected rectangular structure (see figure 1B). Note that it has been held that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).

Re claim 6 (as best understood), Aoyama et al. discloses a method wherein said first end of each said polymer post insulator is connected to said supporting structure by a first rigid body (5 for example) comprising a part of said polymer post insulator, and said second end of each said polymer post insulator is connected fixedly (nailed, see column 5 lines 56-58) to a plate member by a second rigid body (unnumbered, top part of 2 for example) comprising a part of said polymer post insulator (see figure 1B).

Re claim 8, Aoyama et al. discloses a method wherein when an axial direction along a length of each said plural polymer post insulator is substantially a horizontal direction and an axial direction along a length of said supporting structure is substantially a vertical direction, then said plural polymer post insulators are for supporting a weight of a load acting in the vertical direction (see figures 1B and 2).

Re claim 9, Aoyama et al. discloses a polymer insulator apparatus wherein said supporting structure is configured for operating with an electric power transmission line (see column 1 lines 6-9).

Re claim 10, Aoyama et al. discloses a method wherein said supporting structure is configured for operating with an electric power transmission line (see column 1 lines 6-9).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoyama et al. in view of Austin (US001863080).

Re claim 11, Aoyama et al. substantially discloses a polymer insulator apparatus comprising a rigidly and unrotatably connected rectangular structure comprising plural polymer post insulators (2), a supporting structure (unnumbered post, see column 5 lines 11-14) and a plate member (12), wherein a first end of each polymer post insulator is rigidly and unrotatably connected to said supporting structure, and a second end of each said polymer post insulators is rigidly and unrotatably connected to said plate member. Aoyama et al. does not explicitly disclose wherein said supporting structure is selected from the group consisting of a steel pole, a wood pole or a steel tower. However, Austin teaches of supporting structure selected from the group consisting of a steel pole, a wood pole or a steel tower (see figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use supporting structure selected from the group consisting of a steel pole, a wood pole or a steel tower of Austin with the insulators of Aoyama et al. in order to provide the supporting structure for the insulators.

Re claim 12, Aoyama et al. substantially discloses a method for mounting plural polymer post insulators on a supporting structure, comprising: providing a supporting structure (unnumbered) and plural polymer post insulators (2); rigidly and unrotatably connecting a first end of each said plural polymer post insulator to the supporting structure; and rigidly and unrotatably connecting a second end of each said plural polymer post insulator whereby said plural polymer post insulators are parallel to each other and normal to the supporting structure, thereby forming a rigidly and unrotatably connected rectangular structure. Aoyama et al. does not explicitly disclose wherein said supporting structure is selected from the group consisting of a steel pole, a wood pole or a steel tower. However, Austin teaches of supporting structure selected from the group consisting of a steel pole, a wood pole or a steel tower (see figure 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to use supporting structure selected from the group consisting of a steel pole, a wood pole or a steel tower of Austin with the insulators of Aoyama et al. in order to provide the supporting structure for the insulators. Note that it has been held that the functional "whereby" statement does not define any structure and accordingly cannot serve to distinguish. *In re Mason*, 114 USPQ 127, 44 CCPA 937 (1957).

Response to Arguments

5. Applicant's arguments filed 12/22/05 have been fully considered but they are not persuasive.

In response to applicant's arguments that the "tying member 12" of Aoyama is not a plate, examiner disagrees. Column 5 lines 53-57 according to the numbering in the middle, clearly states that it can be "ropes, bands, plates".

In response to applicant's arguments regarding claims 11 and 12 and reference numbers referring to Paw et al. Examiner agrees. This has been corrected.

In response to applicant's argument that use of Aoyama et al. and Austin is "improper", a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. Furthermore, examiner points out that the applicant claims "A polymer insulator apparatus". Both of the prior arts pertain to insulator apparatus, therefore the prior arts can be combined.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M, T, Th and F at 6:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Jinhee J Lee
Patent Examiner
Art Unit 2831

jjl